

Claims

1. Dental polymer film for coating tooth surfaces, characterised in that the polymer film comprises polymerisable groups.
2. Dental polymer film according to claim 1, in which at least some of the polymerisable groups are acrylate or methacrylate groups.
3. Dental polymer film according to claim 1 or 2, which is on the basis of polyurethanes, Michael addition resins or other polyadducts.
4. Dental polymer film according to any one of claims 1 to 3, in which at least a part of the polymerisable groups is radically polymerisable.
5. Dental polymer film according to any one of claims 1 to 4, in which at least a part of the polymerisable groups is cationically polymerisable.
6. Dental polymer film according to any one of claims 1 to 5, which comprises initiators for the thermal, photochemical or redox-induced polymerisation of the polymerisable groups.
7. Dental polymer film according to claim 6, which comprises the initiators in micro-encapsulated form.
8. Dental polymer film according to any one of claims 1 to 7, which comprises organic or inorganic fillers.
9. Dental polymer film according to any one of claims 1 to 8, which comprises one or more polymerisation inhibitors.
10. Dental polymer film according to any one of claims 1 to 9,

which comprises one or more antioxidants.

11. Dental polymer film according to any one of claims 1 to 10, which comprises one or more dyes and/or pigments.
12. Dental polymer film according to any one of claims 1 to 11, which comprises a primer.
13. Dental polymer film according to any one of claims 1 to 12, wherein the side of the polymer film facing the tooth surface is coated with a primer for the hard tooth substance.
14. Dental polymer film according to any one of claims 1 to 13, which comprises an anti-adhesive additive.
15. Dental polymer film according to any one of claims 1 to 14, wherein the side of the polymer film facing away from the tooth surface is coated with an anti-adhesive additive for plaque.
16. Dental polymer film according to any one of claims 1 to 15, which comprises one or more active substances and in particular one or more antimicrobial compounds and/or one or more antibiotics.
17. Dental polymer film according to any one of claims 1 to 16, which is detachably held on a carrier film.
18. Dental polymer film according to claim 17, wherein the carrier film is in the form of an inflatable film bag.
19. Dental polymer film according to claim 17 or 18, wherein the carrier film is translucent.
20. Use of the dental polymer film according to any one of claims 1 to 19 for the coating of tooth surfaces.

21. Use according to claim 20, wherein
  - a) the polymer film according to any one of claims 1 to 19 is applied to the tooth surface and fitted thereto by forming, and
  - b) the polymerisable groups of the polymer film applied and fitted are polymerised.
22. Method for coating a tooth surface, wherein
  - a) the polymer film according to any one of claims 1 to 19 is applied to the tooth surface and fitted thereto by forming, and
  - b) the polymerisable groups of the polymer film applied and fitted are polymerised.
23. Method according to claim 22, wherein, for the coating of a tooth surface in the approximal space, the approximal space is expanded by means of a tooth separator, the surface to be coated is cleaned and the surface is conditioned by means of an etching technique, after which an adhesive is applied to the tooth surface thus prepared and the polymerisable polymer film according to any one of claims 1 to 19 is introduced into the approximal space and positioned against the tooth surface and its polymerisable groups are polymerised after forming, to produce a coating.
24. Kit comprising a dental polymer film according to any one of claims 1 to 19 for sealing and mechanical protection of the tooth surface and an adhesive for fixing the polymer film to the tooth surface.